DOCUMENT RESUME

ED 339 437 JC 910 579

AUTHOR Levin, Bernard H.; Clowes, Darrel A.
TITLE From Positivism to Post-Modernism: Can Education Catch up with the Paradigm Shift?
PUB DATE Mar 91
NOTE 11p.; Paper presented at the Annual Meeting of the Virginia Social Science Association (Newport News, VA, March 22-23, 1991).
PUB TYPE Viewpoints (Opinion/Position Papers, Essays, etc.) (120) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *College Outcomes Assessment; Educational Change; Educational Philosophy; Educational Trends; *Epistemology; Higher Education; Institutional Evaluation; *Outcomes of Education; Politics of Education; *Relevance (Education); Role of Education; *State Standards; *Theory Practice Relationship
IDENTIFIERS Positivism; Postmodernism; Virginia

ABSTRACT

In the literature since the 1970's, the notion that education should serve as a social leveler has given way to the image of the educational institution as a business-like enterprise. This change in the perceived role of higher education has been accompanied by increased pressure on institutions to provide measurements of educational outcomes. For the last 5 years, the State Council for Higher Education in Virginia (SCHEV) has required all of its member institutions to develop and implement student educational outcomes assessment (SEOA) models. SCHEV guidelines charge faculty at individual institutions with drawing conclusions from assessment data and making curricular modifications accordingly. A 1990 survey of faculty senate chairs, chief assessment officers, and curriculum committee chairs at every higher education institution in Virginia has yielded little evidence that SEOA has led to the improvement of any educational outcomes or that faculty have taken on the leadership role which SEOA requires. Thus, SEOA appears to have triggered a purely administrative response to an external mandate rather than an effective mechanism for actually improving student learning outcomes. On balance, however, the lack of faculty involvement may be good, as SEOA, and the larger assessment movement of which it is a part, reflects an outmoded logical positivist approach to education. Since the 1960's, intellectual and academic thought has been undergoing a significant epistemological shift led by critical theorists and radical deconstructionists. Although this paradigmatic shift to post-modernist modes of inquiry is evinced in education in the multicultural movement, and in the proliferation of women's and ethnic studies programs, educational practice tends to be reactive, and thus not attuned to contemporary issues and needs. If the state-mandated assessment movement is successful, it will leave the student trained for the past rather than educated for the future. (MPH)

ED339437

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Presented at the Annual Meeting of the Virginia Social Science Association,
March 22-23, 1991, Christopher Newport College
Newport News,
Virginia

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[presented at the Annual Meeting of the Virginia Social Science Association, 22-23 March 1991, Christopher Newport College]

From Positivism to Post-modernism: Can education catch up with the paradigm shift?

Bernard H. Levin[1] and Darrel A. Clowes[2]

Massive criticism of schools has been a feature of the education literature since about 1970 (Aronowitz & Giroux, 1985), and the role of the schools as a social leveller has declined, while the notion of the educational institution as a business-like enterprize, complete with products, process control, quality circles and zero defects, has become predominant. Indeed, a recent tome is entitled Applying the Deming method to higher education (College and University Personnel Association, 1991). Aronowitz and Giroux argue that the conservative critics' call for excellence, discipline, and goal orientation translate to vocationalism rather than education, and emphasis on skills and rote learning rather than treating the educational environment as Dewey's laboratory of freedom.

Whether from a liberal (Aronowitz & Giroux, 1985) or a neomarxian (Apple, 1979) or conservative business-oriented (Cross, 1991) perspective, the complaints about our system of education, including higher education, have nearly overwhelmed existing intra-institutional processes and made them increasingly vulnerable to external political forces.

The wide-spread belief that nothing is right in education has resulted in testing for minimum competencies, for pre-post changes, and even for "thinking skills." And the operative term is "skills." it is clear that throughout our mensuration spasms, operationalized skills are the focus, rather than more global cognitive processes.

At the federal level, this concern for measurement has become a dominant theme. In a recent article, the Assistant Secretary for Educational Research and Improvement, U. S. Department of Education (Cross, 1991) has written, "Devising better yardsticks for measuring student learning is one of my priorities. President Bush and the governors have agreed that educational goals are useless unless progress toward meeting them is measured accurately and adequately" (p.21). In effect, measurement has become as important as learning itself in the political scheme.

We had difficulty getting a clear picture of assessment on a national level, and were relieved to read Popham, who points out (in Kirst, 1991b) that generally there is a lot more talk about innovative testing and measuring methodology than there is action.

Popham also reminds us that it was Heraclitus' view that "... everything was always in a state of flux. It's certainly true that the educational assessment world is currently in an almost frenzied state of flux. And flux, as we know, is an F-word with four letters" (p. 27).

For more than five years now, Virginia's public institutions of higher education have been faced with fallout from one over-riding concern of the Governor, the General Assembly, the Southern Association of Colleges and Schools, the State Council of Higher Education for Virginia (SCHEV), and the general public. That concern is the desire for measurement of educational outcomes.

The SCHEV guidelines for what has become known as student educational outcomes assessment (SEOA) require that each institution develop its own plan, implement that plan at the level of the faculty, and charge the faculty with the responsibility for drawing conclusions and making curricular modifications so as to enhance student learning. Those of us in higher education have yielded to the power of the purse, but often without enthusiasm. Each public college has an approved plan, and submits periodic reports. Each year the reports get more complex, measure more details, and allege more progress. But is there substantive change behind what is going on? If there is to be the curricular progress which SEOA assumes is its own inevitable outcome, there must be a high degree of faculty involvement; without that involvement, substantive improvement in student learning seems implausible.

Last year we became interested in the degree to which this politically and apparently philosophically vital process, SEOA, had penetrated higher education in Virginia. We surveyed faculty senate chairs, chief assessment officers, and curriculum committee chairs at every Virginia institution of higher education (Levin and Clowes, 1990).

The survey data showed that:

1. faculty senate chairmen were least likely to respond;
2. few respondents [20%] indicated that any structural change had occurred secondary to SEOA; even those changes were largely administrative in nature;
3. most written comments, regardless of institution type or respondent's role, were consistent with SEOA as an administrative process. Even though this issue was not directly raised by the survey questions, we are surprised that not a single respondent commented that SEOA had led to the improvement of any educational outcome or that SEOA had led to any other positive outcome other than compliance; and
4. there was little evidence of faculty leadership in SEOA.

Thus, SEOA, like its parent institutional effectiveness, appears most clearly as an administrative response to an external

mandate. But there is much more to the story. Faculty, who according to the mandate were to be key players, were little involved. And therefore, whatever SEOA is doing, it cannot be doing what is the stated intent put forward by SCHEV.

Is the lack of involvement by faculty driven by a slow rate of penetration of new ideas within academe, or by a sense of threat created by objective measurement of productivity. We argue instead that more fundamental forces are operating.

Upon reflection, we believe that the lack of faculty involvement is on balance good, that SEOA is a reflection of an out-of-date philosophical approach which would do a disservice to the students and to the academic community. Virginia's assessment model for higher education functions [in part because it fails to function] as an example of the lag between state policy and contemporary intellectual and academic thought.

We will present a discussion of the philosophical climate in education, particularly higher education, then consider the outcomes assessment model as an example of both political responsiveness and outmoded thinking, and then consider post-positivism as an alternative.

Modernism can be seen as an extension of the Enlightenment and rationalism with an emphasis on the role of the individual, on totality, and on the master narrative of the Western Tradition.

Positivism is an extreme subset of modernism, tied to an emphasis on science as an instrument of prediction and control. It appears closely tied to reductionism, physicalism, and mechanism.

Positivism and its kink, the assessment movement, have encountered considerable criticism in recent years. Shephard (in Kirst, 1991a, pp. 23,27) argues that "Measurement-driven instruction comes from the behavioristic test-teach-test learning model. It assumes that all of the constituent elements of important insights and understandings can be broken down and taught one by one.... This learning theory is seriously flawed and has a deadening effect on instruction, especially because it postpones attention to thinking and problem solving.... Under great pressure, the weaknesses of any assessment will be exaggerated. Therefore, you are always in danger of encouraging teaching to the assessed version of the learning goals rather than the original goals. [and] forcing modes of instruction via external high-stakes assessments detracts from the professional role of teachers. It trades making the worst 10% of teachers better by fiat against empowering the other 90%."

Shephard is not alone in criticizing positivism and assessment. For example, Roberts (1983) attacks holistic scoring of writing quality, because he believes it is "product centered and

decontextualized" (p. 1). Roberts argues for shifting the focus of evaluation from the product to the process. He argues against reductionism and strongly for the constructivist approach involving naturalistic inquiry.

Lutz (1988) cuts a broader swath. He points out that logical positivism results in a reductionist, fragmented curriculum taught in a fixed sequence of elements, without any required reference to values.

It is not only in assessment and related activities that the physicalist and reductionist traditions within positivism have been challenged. For example, Couclelis and Golledge (1982) argue strongly for positivist quantification and measurement within the discipline of geography, but recognize the role of the scientist as involved in an interaction with what he measures, and the importance of some unobservable dimensions (e.g., cognition). They explicitly attack "... the notion of an a priori given world that is so central to traditional positivist understanding" (p.5), and report that in human spatial behavior there is an increasing move toward constructivist epistemology.

In contrast with modernism and its subset positivism, post-modernism as a development is rooted in the European intellectual tradition of the 1960's as a reaction to Marxism in Europe and in America to capitalism in economics and the liberal tradition in social thought. Post-modernism questions the hegemony of a world view dominated by western, male, majority perspectives (the master narrative) and discipline-based perspectives which explain the whole (totality); it represents belief in individual agency (free will and rational decision-making). Within post-modernism, deconstruction is fundamentally an extension of critical theory, as critical theory is of hermeneutics.

Post-modernism advocates the "problematic of otherness" as introducing other perspectives and voices. It is more than a perspective; this view defines the "problems" we address differently, leading to a "deconstruction" of the world as we know it. Post-modernism allows us to see the world in terms of other relationships and from many other perspectives.

From within the post-modern approach, hermeneutics ("the science of interpretation") calls on a variety of disciplines to get multiple explanations for phenomena as opposed to the single view any one discipline gives. As an example, popular culture is seen as equally as real as "high" culture. Here, the false distinctions among experience based on academic disciplines are "deconstructed" and immediate and personal experience is taken as equally valid.

Critical theory implies an application of the marxist class conflict and power model, and a notion that you must pull apart in

order to understand (cf. Hegelian Triad). Therefore it is incompatible with traditional linear logic. For example, Gibson (1986) presents critical theory as a model which he believes has as its central intention the emancipation of both practitioners and students, perhaps not all that far from Dewey's laboratories of freedom. Gibson presents critical theory as holistic, taking into account such variables as emotion and cognition.

Critical theory (e.g., Gibson, 1986) is inherently not value-neutral, but instead driven by the goal of a more humane and just society. It is thus quite antithetical to the traditional positivist model. Critical theory goes so far as to suggest that in the social sciences the positivist scientific model hampers the pursuit of truth, that facts are themselves value-laden, and that subjectivity cannot be escaped since objectivity is inevitably destroyed by social context. According to critical theory, record-keeping, instead of being value-neutral, is seen as a force for social control. And as demands for accountability in educational institutions increase, record-keeping (e.g., assessment data) increases, and the social control of students therefore also increases, to the detriment of the educational process. Although critical theorists attempt to avoid the Marxist notion of near-total economic determinism, in practice critical theorists often find the origin of social dysfunction in capitalism, and effective control as a function of class conflict.

Deconstruction uses not only marxist views, but also the tenets of feminists and other disenfranchised groups. Thus the popular culture and the high culture are equal as a source of knowledge about people, the time, and the social context. Workers in the hermeneutic tradition will look at phenomena not just from the perspective implied by the presenting question, but also from historic, social, economic and other perspectives.

Another focus of the post-modern approach is its acceptance of the individual as the point of contest among power relationships. This shifts the focus from the macro of society , culture and movements to the micro of the personal, the immediate, and the directly experienced. Thus post-modernism represents a significant epistemological shift.

Paradigm Shift -- There has been a change in the frame of reference for contemporary intellectual and academic thought brought on by Kuhn (1962,1970) and the notion of the paradigm shift, and now by the introduction of post-modernist thought through the critical theorists and radical deconstructionists in literature, art, drama, social theory, and now in education. Representatives are Apple (1979) and Aronowitz and Giroux (1985).

For most of us, this shift is not directly experienced. It is brought to us by shifts in popular arts, through visual experiences with art, cinema and television, and through secondary references

in academic and applied work. The criticism of systems theory and management by objectives from the perspective of Deming and the Japanese methods is an example. We have concern for qualitative research as now addressing areas quantitative research cannot comprehend, e.g., in measurement and assessment theory.

At the same time, many are completely unaware of these underlying developments. An instance of a tertiary effect in practical application is our concern in education for multicultural education. One frequently-heard justification for multicultural education is from economics, but that is not sufficient to explain the strength of the movement. Multicultural education is consonant with the thrust of post-modernism and thus resonates positively. Language instruction, the interest in women's studies, ethnic studies, etc., represent the same thrust. The renewed interest in interdisciplinary work reflects the hermeneutic and post-modernist thrust also.

These are ripples ahead of the wave, tertiary signs of a coming change, indicators of a paradigm shift emerging through the intellectual arena and gradually impacting the social world of practice.

We are often unaware of these paradigm shifts. Our experience with SEOA is an instance of that unawareness. The educational world is usually a reactive world and thus not attuned to contemporary issues. Thus we continue in a positivist mode in practice in education while the intellectual world has left this mode of thought and moved into modernism and now is tentatively approaching post-modernism as a mode of thought. Assessment, like many perspectives on instruction, represents a mode of thought related to practice that is far behind. This time lag is an explanation for the frustration we experience with current policy on assessment.

Frustration is not the only untoward consequence of the assessment time-warp. It is clear that those things which we choose (or are coerced) to measure become the things to which more attention is paid. It is also clear that academic bean counting (countability) drives an educational version of Gresham's law -- those things which are easiest to count become the focus of attention. In effect, the variables chosen for review have a tendency to alter the previously prevailing view (see Jackson, 1990). Assessment, with its heritage of logical positivism and linear thinking, inevitably drives us away from those things which more contemporaneous approaches teach us are important.

Harris (1990), asked what we really want students to gain when we teach them writing. He suggested a need to balance the learning of the kinds of thinking characteristic of the academy with a learning of the kinds of thinking needed in order to critically challenge the academy.

We believe that the need for this balance extends far beyond the teaching of writing. We believe that the approach of the assessment folk, and of the logical positivists in general, leaves the student trained for the past, rather than educated for the future.

We do not know whether education can catch up with the paradigm shift. Perhaps the very nature of educational institutions inevitably creates a cultural lag. We do know that this lag is likely to be quite expensive for all concerned.

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Footnotes

[1] Blue Ridge Community College, Weyers Cave VA 24486

[2] College of Education, Virginia Tech, Blacksburg VA 24061

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